

Patent claims

1. Method for the production of plastic skins by powder sintering, in which powder is applied to a forming tool where it forms a plastic skin by sintering, a partial area of the forming tool being made inaccessible for the powder by means of a sealing device, at least in a first pulverisation step,
5 characterised in that the forming tool has a separating web along an edge of the partial area and in that a mask having a preferably inflatable sealing edge serves as a sealing device, the mask abutting with the sealing edge against the
10 separating web during the first pulverisation step and being secured solely to the forming tool.
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2. Production method according to claim 1, characterised in that the first pulverisation step is followed by at least one additional pulverisation step, preferably to produce a plastics material layer which is of a different colour from a first plastics material layer produced in the first
20 pulverisation step, the mask being removed for the additional pulverisation step.
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3. Production method according to one of claims 1 or 2, characterised in that the separating web is undercut and thus forms a groove which is open towards the
30 partial area and in which the sealing edge comes to rest during the first pulverisation step.
4. Production method according to one of claims 1 to 3, characterised in that the forming tool consists of

nickel, at least at a surface which receives the plastic skin being produced.

5. Production method according to one of claims 1 to 4,

characterised in that the sealing edge of the mask consists of silicon or a duroplastic elastomer.

6. Production method according to one of claims 1 to 5,

characterised in that the plastic skin is provided with areas of differing graining due to the different graining of a surface receiving the plastic skin being produced, inside and outside the partial area.

15 7. Production method according to one of claims 1 to 6,

characterised in that, due to a three-dimensional contour of a surface of the forming tool receiving the plastic skin during the powder sintering process, said plastic skin obtains a correspondingly three-dimensional contour, and possibly due to a three-dimensional course of the separating web, on the plastic skin a separating line having a correspondingly three-dimensional course is produced between surface areas of differing colour and/or graining.

8. Sintering tool for producing plastic skins by powder

sintering, which has a forming tool with a surface for receiving a plastic skin being produced and which has a sealing device for separating a partial area of the surface, characterised in that the forming tool has a separating web on the surface along an edge of the partial area, and in that the sealing device is designed as a mask having a

preferably inflatable sealing edge, which is to be secured to the surface in such a way that the partial area is covered by the mask and the sealing edge abuts against the separating web.

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9. Sintering tool according to claim 8, characterised in that, when the mask is secured to the surface, it is solely secured to the forming tool.

10. Sintering tool according to one of claims 8 or 9, characterised in that the separating web is undercut and forms a groove which is open towards the partial area and in which the mask, when secured, abuts with the sealing edge against the separating web.

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11. Sintering tool according to one of claims 8 to 10, characterised in that the forming tool has a shell with a wall thickness of between 2 mm and 6 mm, preferably between 2 mm and 4 mm, for receiving the plastic skin being produced.

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12. Sintering tool according to one of claims 8 to 11, characterised in that the forming tool is double-walled for guiding a preferably liquid heating medium and/or coolant in a cavity between two walls.

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13. Sintering tool according to one of claims 8 to 12, characterised in that it has at least one powder box on which the forming tool may be placed, the sintering tool being preferably mounted so as to be rotatable about a horizontal axis.

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14. Sintering tool according to one of claims 8 to 13,
characterised in that the forming tool consists of
nickel, at least at the surface.

5 15. Sintering tool according to one of claims 8 to 14,
characterised in that the sealing edge of the mask
consists of silicon or a duroplastic elastomer.

10 16. Sintering tool according to one of claims 8 to 15,
characterised in that the mask has a thickness of
between 1 mm and 6 mm, preferably between 2 mm and 4
mm and/or the sealing edge, when inflated, has a
thickness of between 5 mm and 20 mm, preferably
between 10 mm and 15 mm.

15 17. Sintering tool according to one of claims 8 to 16,
characterised in that the separating web has a
height of between 2 mm and 7 mm, preferably between
3 mm and 5 mm and/or a width of between 1 mm and 6
mm, preferably between 2 mm and 4 mm.

20 18. Sintering tool according to one of claims 10 to 17,
characterised in that the groove has a depth of
between 0.2 mm and 2 mm, preferably between 0.3 mm
and 1 mm.

25 19. Sintering tool according to one of claims 8 to 18,
characterised in that the surface has differing
graining inside and outside the partial area.

30 20. Sintering tool according to one of claims 8 to 19,
characterised in that the surface has a three-
dimensional contour.

21. Sintering tool according to one of claims 8 to 20, characterised in that the separating web has a three-dimensional course.

5 22. Plastic part which has on one surface a plastic skin produced by means of a production method according to one of claims 1 to 7, the plastic skin preferably having inside at least one area a surface of a different colour and/or different graining and at 10 least one plastics material layer less than outside this area.

15 23. Plastic part according to claim 22, characterised in that the plastic skin is back-foamed, preferably with polyurethane, the plastic part having in a particularly preferred manner a support which is foamed round or on.

20 24. Plastic part according to claim 22, characterised in that the plastic skin is back-sprayed, preferably with a back-spraying compound containing polypropylene.